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Commentary: Doctor, your patient is bleeding

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Spending time to “dry up” at the end of an operation in cardiac surgery pays off with a lower rate of return to the operating room for bleeding and a lower transfusion rate. Somehow, the maxim of “dry going in...dry going out” is not always followed and can then be compounded by delaying a necessary return to the operating room with attempts to avoid re-exploration by giving blood products. The authors of the article “Five-Minute Test to Prevent Post-Cardiotomy Re-Exploration”¹ did a retrospective analysis comparing 2 standards of care in 2 different time periods. Each time period was 2 years in length, with the control group comprising the first 2 years and the treatment group the second 2 years. For the first 2 years, timing of the sternal closure was based on the subjectivity of the surgeon. During the second 2 years, a strategy was adopted that consisted of packing the pericardial space with gauze sheets for 5 minutes, then measuring the amount of blood in the gauze before sternal closure. Sternal closure was not performed unless the amount of blood measured by the 5-minute test was less than 100 g, roughly 3.5 ounces. There were 278 patients in the control group and 295 patients in the treatment group. The treatment group had a significantly lower incidence of re-exploration than the control group. The re-exploration rate decreased from 5.7% to 1.5%.

We should not be surprised. The 5-minute test is another successful strategy to add to the list of good ideas to prevent re-exploration. What these strategies have in common is slowing down and taking time to dry up the field before closing. Five minutes is an eternity for cardiac surgeons, who pride themselves on speed or feel pressured by the

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CENTRAL MESSAGE

Slowing down at the end of a case saves time, transfusions, and improves outcomes.

schedule. Packing the wound before closing and waiting, as the surgeons did in the treatment group, affords the ability to slow down and check for, and often find, surgical bleeding. Combining this strategy with a bleeding checklist^{2,3} is a formula to lower re-exploration rates and lower rates and amounts of blood product transfusions.

There are confounding factors that may have contributed to the authors’ success in a good way. The surgeons were motivated to decrease the re-exploration rate, and they may have been more meticulous during the second 2 years and adopted the practice of slowing down, packing, and drying up the wound. Postoperative bleeding, transfusions, and re-explorations decrease and outcomes improve when cardiac surgeons take extra time to assure hemostasis. Furthermore, by lowering the reoperation rate, cardiac surgeons get a “two-for-one” by the Society of Thoracic Surgeons and the National Quality Standard. They not only decrease the reoperation for bleeding rate, but they also decrease the prolonged ventilation rate as bleeding, and re-explored patients often have a total intubation time over 24 hours.

By taking the time for adequate hemostasis at the end of the case, when the patients do bleed postoperatively, the surgeon can honestly say “...but she was dry when I closed her!”

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